

### **Appendix 3: The golden rules of immunisation and the 'cold-chain' page 1** (from pages 200 - 202)

Can be copied or made into a poster for vaccine service providers.

#### **General issues related to the Schedule**

1. Follow the Australian Standard Vaccination Schedule (ARVS) guidelines and the recommendations of the NHMRC at all times. All infants are now offered the first hepatitis B vaccine at birth.
2. Administer all the recommended vaccines on the ASVS at the recommended time. Reducing the intervals between doses should only be done during a 'catch-up' schedule.
3. Check and record the immunisation status of all children and adults regularly, and offer opportunistic immunisation if needed.
4. Do not defer, postpone or advise against immunisation unless a true contraindication exists.

#### **Prior to vaccination**

5. Ensure there are adequate trained staff, emergency equipment and drugs on site to deal with rare post-vaccination complications. It is important that the correct strength of adrenaline is kept close at hand in case of anaphylaxis.
6. Discuss the risks and benefits of immunisation and ensure that valid consent is obtained prior to immunisation.
7. Use the pre-vaccination assessment and checklist to help assess the child or adult's health status prior to vaccination.

#### **Administration of vaccines**

8. Administer all due vaccines on the same day, but give them in separate sites (ie. use different limbs) using separate syringes. If it is necessary to use the same limb, injection sites should be separated by at least 25mm (2.5 cm).
9. Check the expiry date of all vaccines prior to drawing up, and record the batch number in the patient's records and the Personal Health Record.
10. Draw up vaccines using sterile technique.
11. Never mix separate vaccines in the same syringe and never mix vaccines with other drugs.
12. Do not give test doses or half doses of vaccine.
13. Give all injections in children less than 12 months old in the anterolateral thigh, not the buttock.
14. Give single injections to children 12 months or older in the deltoid. Where multiple injections are required the anterolateral thigh may be used.
15. Give vaccines intramuscularly with the exception of oral polio vaccine (OPV), which is given orally. Note that MMR, influenza and pneumococcal vaccines can be administered either by intramuscular or subcutaneous injection. JE and varicella vaccines are administered subcutaneously.
16. Opened vials of OPV can be re-used until they are empty, provided that when not in use, the vial is capped, stored between 20C and 80C and the expiry date has not passed.

#### **Documentation and notification**

17. Record all vaccinations:
18. on the Australian Childhood Immunisation Register (if under 7 years of age);
19. in the child's Personal Health Record folder (kept by parent/caregiver). Adults should also be given a 'take-home' record of vaccination; and
20. in the child's clinical record file in your clinic or surgery.
21. Record and notify all significant adverse events following immunisation (see Part 1.6, 'Adverse events following immunisation (AEFI)').

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#### **After vaccination**

22. All parents/guardians should be given pre- and post-immunisation advice as per the NHMRC guidelines.
23. Keep all vaccinated patients under observation (in the waiting area near the clinic/surgery) for at least 15 minutes after vaccination.

#### **Keeping vaccines potent (the 'cold-chain')**

##### *'Cold-chain' Management*

24. Store, transport and maintain vaccines at a temperature between 2oC and 8oC.
25. Have a maximum/minimum thermometer in the vaccine refrigerator. The temperature needs to be read and recorded daily and kept between 2oC and 8oC. With few exceptions (see Part 1.10, 'Transport, storage and handling of vaccines') vaccines must not be frozen. Diluent must not be frozen.
26. Ensure there is one person responsible for the 'cold-chain' in your clinic/surgery and that other staff are aware of how to monitor and maintain the 'cold-chain'.

##### *Vaccine refrigeration and storage*

27. It is preferable to use a purpose-built refrigerator for storing of vaccines (see Part 1.10, 'Transport, storage and handling of vaccines').
28. If a purpose-built vaccine refrigerator is not available, ensure a separate vaccine refrigerator (preferably a 'frost free' type) exists solely for the storage of vaccines. Do not store food or other items in this refrigerator.
29. Store vaccine on the middle and upper shelves only and keep them away from the evaporation plate.
30. Fill lower drawers and door spaces with plastic bottles filled with salt water (label the salt water bottles).
31. Make sure your fridge is defrosted regularly and ice is not allowed to build up (not necessary for frost-free types).
32. Store vaccine in an insulated container with a sweated ice brick while defrosting the fridge. Keep vaccine away from direct contact with the ice brick.
33. Return all unused vaccine to the refrigerator immediately.

##### *Vaccine delivery and transport*

34. Unpack and check the 'cold-chain' monitors (heat and freeze) if they are used in your State or Territory. Store vaccines promptly.
35. Transport vaccine in an insulated container with a 'sweated' ice brick and monitor temperatures during transport.
36. During transport, ensure that vaccines do not directly contact the ice bricks. Wrap them up.

##### *Vaccine damage*

37. In Australia freezing is the main cause of vaccine damage in both tropical and temperate areas. Freezing inactivates most vaccines (see Table 1.10.1).
38. Some vaccines are damaged by exposure to light. See Table 1.10.1.
39. Always contact your State/Territory Vaccine Distribution Centre before you discard any vaccine.

#### **Remember – an unimmunised child is an 'at risk' child.**

**Acknowledgements:** This document is based on the Golden Rules developed by the North East Valley Division of General Practice in Melbourne, Victoria.